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A Possible New Amino Acid Detection Agent: 6H-2,4-Dihydroxyindeno[2,1-g]pteridin-6-one

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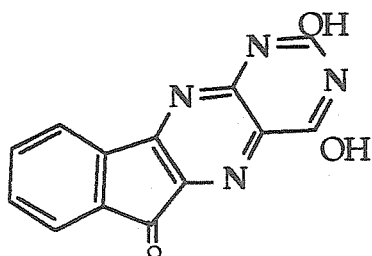
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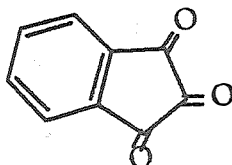
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**A POSSIBLE NEW AMINO ACID DETECTION AGENT:
6H-2,4-DIHYDROXYINDENO[2,1-g]PTERIDIN-6-ONE**
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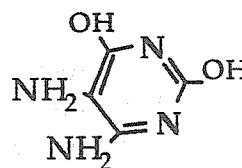
Ninhydrin (1,2,3-triketohydrindene hydrate) (2) is the most commonly used amino acid detection agent. When ninhydrin reacts with amino acids it results in a purple coloration, but no fluorescence. The focus of this study is to synthesize a pteridine analog of ninhydrin which reacts with amino acids to form fluorescent products. The compound 6H-2,4-Dihydroxyindeno[2,1-g]pteridin-6-one (1) an analog of ninhydrin (2) is being synthesized via the reaction between ninhydrin and 2,4-dihydroxy-5,6-diaminopyrimidine sulfate (3). The Timmis synthesis between 1,3-indandione and 6-amino-2,4-dihydroxy-5-nitrosopyrimidine results in the same compound (1).



(1)



(2)



(3)